ment along said axis is sensed and information representative of said movement is sent to said host microprocessor.

45. A method as recited in claim **40** wherein a local microprocessor separate from said host processor receives said force information from said host processor and causes said control signals to be sent to said actuator.

46. A method as recited in claim **40** wherein said interaction occurring in said graphical environment includes a collision between said user-controlled graphical object or entity and said different graphical object.

47. A method as recited in claim **40** wherein said interaction occurring in said graphical environment includes a selection of said different graphical object by said user-controlled graphical object or entity, wherein said different graphical object is one of an icon, a window, and a menu item.

48. A method as recited in claim **40** wherein said direction pad is moveable along an axis approximately perpendicular to a top surface of said direction pad, wherein said movement along said axis is sensed and information representative of said movement is sent to said host microprocessor.

49. A tactile feedback control device for inputting control signals to a computer and for outputting forces to a user of the control device, the control device comprising:

a housing, said housing capable of being held and operated by a user in one or more hands of said user;

a direction pad which is capable of being contacted by said user in one or more of a plurality of different locations to provide signals to said host computer corresponding to said locations contacted, wherein each of said signals corresponds to one of said locations on said direction pad; and

a computer-controlled actuator coupled to said member, said actuator outputting a force on said member to cause said member to move with respect to said housing such that said user contacting any of said plurality of different locations can feel said force.

50. A control device as recited in claim **49** wherein said direction pad provides a plurality of location signals to said host computer.

51. A control device as recited in claim **50** wherein each of said locations on said direction pad is an extension of said direction pad, said extensions being part of said direction pad, wherein said direction pad tilts approximately about a pivot point when said user presses one of said extensions.

52. A control device as recited in claim **50** wherein said direction pad is capable of being contacted by said user in four different locations, each location providing a different directional signal to said host computer.

53. A control device as recited in claim **50** further comprising a sensor for detecting motion or position of said direction pad approximately perpendicularly to a top surface of said direction pad, wherein an input signal based on said detected motion or position is sent to said computer.

54. A control device as recited in claim **49** further comprising a sensor that detects when said locations have been contacted by said user.

55. A control device as recited in claim **54** wherein said sensor includes a plurality of contact switches, and further comprising an elastometric layer positioned under said direction pad, said elastomeric layer providing conductive portions to engage said contact switches.

56. A control device as recited in claim **49** wherein said force moves said direction pad approximately perpendicularly to a plane of a top surface of said direction pad.

57. A control device as recited in claim **56** wherein said actuator is a linear actuator that provides an output force in a linear degree of freedom.

58. A control device as recited in claim **49** wherein said actuator includes one of a voice coil actuator and a piezoelectric actuator.

59. A control device as recited in claim **49** further comprising a computer-controlled housing actuator that outputs a force on said housing of said control device independently of said actuator outputting said force on said direction pad.

60. A control device as recited in claim **49** wherein said movement of said direction pad caused by said force with respect of said housing is just large enough to be able to convey a vibration to said user contacting one or more of said locations on said direction pad.

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